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Replacement Sheet Serial No. 09/890,180 PEST AVAILABLE COPY

A system for establishing a secure communication channel between users in an IP telephony network is described. A first user and second user may be coupled to first and second telephony adapters, which in turn may be coupled to first and second gateway controllers, respectively, wherein the gateway controllers control user access to the IP telephony network. The telephony adapters may be used to encrypt and decrypt user information exchanged over the IP telephony network. The system includes a method which begins when a request is received at the first gateway controller to establish a secure communication channel. Next, a secret key may be generated at the first gateway controller. A copy of the secret key may be distributed to the first and second telephony adapters over previously established secure connections. The secure communication channel may be established between users by encrypting and decrypting information using the secret key.

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